SEPTEMBER 2005

INTRODUCTION TO BOND MATH

Bond Basics

STRICTLY PRIVATE AND CONFIDENTIAL

Presenter

Brian Corley

Vice President, Public Finance

JPMorgan

JPMorgan

Bond Basics	1
What is a Bond?	2
Example of Bond: Mortgages	3
Bond Terminology: Quick Overview	4
Maturity of a Bond	5
Principal	6
Coupon Rate and Interest	7
Yield	8
Bond Pricing	9
Par, Discount and Premium Bonds	10
Bond Proceeds	11
Type of Bonds: Fixed Rate	12
Type of Bonds: Floating Rate	14
Type of Bonds: Callable	15
Official Statement	16
Sample Official Statement Cover	18
Inside an Official Statement	19
Sizing a Bond Issue	25
Bond Conventions	35

What is a Bond?

- A **bond** is a debt instrument that obligates the issuer to pay to the bondholder the **principal** plus **interest**
  - A buyer of the Bond is the **lender or investor**
  - A seller of the Bond is the **borrower or issuer**
- When an **investor** purchases a bond, he is lending money to a government, municipality, corporation, federal agency or other entity known as the **issuer**
- In return for the loan, the issuer promises to pay you a specified rate of **interest** during the life of the bond and to repay the face value of the bond (the **principal**) when it "matures," or comes due
- Among the types of bonds you can choose from are: U.S. government securities, municipal bonds, corporate bonds, mortgage and asset-backed securities, federal agency securities and foreign government bonds

Example of a Bond: Home Mortgage

- Homeowner **(similar to bond issuer)** wants to purchase a home, but cannot afford to pay the entire price of the home upfront
- Homeowner can take out a mortgage on her home and a lender **(similar to an investor)** will loan her the money to pay for the home **(similar to a principal or par amount)**
- In return for borrowing the money, homeowner will pay the borrowed money back plus interest **(based on a market interest rate for borrowing money; similar to a coupon rate on a bond)**

Bond Terminology: Quick Overview

- **Principal, Face Amount, or Par Amount**
  - Amount of the loan
- **Maturity Date**
  - Repayment date of loan
- **Coupon Rate and Interest Rate**
  - Percentage of Principal paid periodically on a loan
- **Price**
  - An amount a lender will pay for a bond in consideration of future receipt of principal and interest payments
- **Yield**
  - The rate of return an investor receives from investing in a bond

Maturity of a Bond

- Specific future date on which the final bond payments are due (bond no longer exists after maturity date)
- Typically, maturity date is less than or equal to 30 years
- Most bond issues have bonds maturing each year until the final maturity date of the series

Maturity Date	Principal
06/01/05	1,000,000
06/01/06	1,150,000
06/01/07	1,300,000
06/01/08	1,450,000
06/01/09	1,600,000
06/01/10	1,750,000
06/01/11	1,900,000
06/01/12	2,050,000
06/01/13	2,200,000
06/01/14	2,350,000
Total	16,750,000

Principal

- Also known par amount or face value of a bond
- It is the amount an issuer borrows
- To be paid back on future date (maturity date)
- Increments
  - Typically, bonds are sold in $5,000 principal increments
  - Often $100,000 for variable rate bonds

Coupon Rate and Interest

- **Coupon**
  - Percentage rate (based on principal/par amount) that expresses the annual interest paid on outstanding bonds
  - Fixed or variable
- **Interest**
  - Cost of borrowing money for the issuer
  - Usually paid periodically
    - Semi-annually for fixed rate bond
    - Monthly for variable rate bonds
  - Calculated by multiplying principal by coupon rate (adjusted for length of period between interest payments)

Example: Fixed Rate Bond

Date	Principal	Coupon	Interest
03/01/05			25,000.00
09/01/05			25,000.00
03/01/06	1,000,000.00	5.000%	25,000.00

Yield

- Percentage rate that expresses annualized rate of return on the bond
- Stated yield – the yield stated to the investor at time of purchase
  - Yield to Maturity – if investor holds bond until maturity
  - Yield to Call – if the issuer pays off the bond early
- Coupon vs. Yield
  - Coupon explains the cash flow
  - Yield explains the investment return

Coupon vs. Yield

Maturity Date	Principal	Coupon	Price Paid	Yield
04/01/25	1,000,000	5.000%	1,000,000	5.000%
04/01/25	1,000,000	5.000%	950,000	5.407%
04/01/25	1,000,000	5.000%	1,050,000	4.620%

Bond Pricing

- Bond pricing is simply the **present value** of the cash flows
- For example, $1,000,000 bond:
  - Settlement 9/1/04
  - Maturity 3/1/06
  - 5% coupon
  - 5.25% yield

Date	Cash Flow	PV 09/01/04 5.25%
03/01/05	25,000.00	24,360.54
09/01/05	25,000.00	23,737.43
03/01/06	1,025,000.00	948,340.62
Total	1,075,000.00	996,438.59

4,982.19 per $5,000
99.64385888 per $100

Par, Discount and Premium Bonds

- **Par Bonds**
  - Coupon equals yield
  - Purchase price equals principal amount
- **Discount Bonds**
  - Coupon less than yield
  - Purchase price less than principal amount
- **Premium Bonds**
  - Coupon greater than yield
  - Purchase price greater than principal amount

Bond Proceeds

Bond Proceeds are the funds received by an issuer from the underwriter for the sale of the bonds. It differs from the Par Amount of the bonds depending upon whether the bonds are par, discount or premium.

For example, if an issuer needs $100,000,000 to build a project, the par amount varies as shown below:

Type of Bonds

Bond Type	Par Amount	X Price	=	Proceeds
Par	100,000,000	X 1.0000		$100,000,000
Discount	106,347,907	X 0.9403		100,000,000
Premium	94,367,221	X 1.0597		100,000,000

Types of Bonds: Fixed Rate

- **Serial bonds**
  - A bond issue in which a portion of the outstanding bonds matures at regular intervals, until eventually all of the bonds have matured
  - Serial bonds are issued on the same date and are quoted by their yield, as opposed to their price
- **Term Bonds**
  - Unlike serial bonds, term bonds are due at only one maturity. They usually carry a **sinking fund requirements** (also known as **mandatory redemption provisions**) with reserves set aside by the issuer to redeem term bonds to prepare for its retirement
  - Term bonds are usually quoted by price, as opposed to yield

An issue can have both serial and term bonds. Example:

Serial bonds can mature from May 1, 2001 to May 1, 2022. The two term bonds are as follows:

$63,860,000 bonds with a 5.625% coupon due May 1, 2026
$63,860,000 bonds with a 5.75% coupon due May 1 2030

Type of Bonds: Fixed Rate

- **Zero Coupon Bonds**
  - Term bonds that pay no periodic interest and have a coupon rate of zero
  - They are sold and purchased at a deep discount
  - Interest is not paid to the investor on a semi-annual basis
  - At maturity, an amount equal to the principal invested plus the interest earned, compounded semiannually at the stated yield is paid

Example:

A bond with par amount of $20,000, maturing in 20 years, may be purchased for roughly $6,757. At the end of 20 years, the investor will receive $20,000. The difference between $20,000 and $6,757 represents the interest on the bonds.

Type of Bonds: Floating Rate

- **Variable Rate Demand Obligations (VRDBs)**
  - Typically structured with a long-dated maturity and short reset periods
    - Daily
    - Weekly
    - Monthly
    - Semi-annual
    - Flexible rate
  - VRDBs provide call flexibility, and a standard multi-modal structure gives the issuer flexibility to change between interest rate modes
- **Auction Rate Bond**
  - Interest rates are reset on a periodic basis through a “Dutch Auction” process, which takes place at the beginning of each holding period and determines the interest rate for each period
  - Auctions are held every 1, 7, 28 or 35 days and flex mode

Type of Bonds: Callable Bonds

- **Callable Bonds**
  - Bonds that can be redeemed by an issuer before their actual maturity on and after a specified call date (an **optional redemption provision**)
  - These bonds are priced to call, rather than priced to maturity
  - If bonds are redeemed, the price is always at par or higher

Official Statement (OS)

- What information to find, and where to find it:
  - **OS Cover**
    - Par, Issuer, Issue Description, Bond Series
    - Dated/Delivery date
    - Interest payment dates
    - Tax status (tax-exempt, AMT, or taxable)
    - Bond insurer
    - Managers/syndicate; lead is center or leftmost on top line
    - Some information on floating rate mode, if applicable
  - **Inside cover**
    - Amortization
    - Coupons & Yields

Official Statement, continued…

- What information to find, and where to find it: (cont.)
  - **Sources and Uses of Funds**
    - New money or current refunding or advance refunding
    - Project, debt service reserve fund, capitalized interest fund, surety policy
  - **Redemption information**
    - call premium, call dates, # of days notice
  - **Ratings**
    - insured or uninsured ratings?
  - **Debt Service**
    - Payment schedule for the bonds

Sample Official Statement Cover

NEW ISSUE – BOOK-ENTRY ONLY **Ratings: See "RATINGS" herein**

In the opinion of Akerman Senterfitt and Marchena and Graham, P.A., Co-Bond Counsel, rendered in reliance upon the opinion of Palmer & Dodge LLP, Special Tax Counsel, based upon an analysis of existing law and assuming, among other matters, compliance with certain covenants, interest on the Series 2003B Bonds is excluded from gross income for federal income tax purposes under the Internal Revenue Code of 1986. It is also the opinion of Co-Bond Counsel, rendered in reliance upon the opinion of Special Tax Counsel, that interest on the Series 2003B Bonds is not a specific preference item for purposes of the federal individual or corporate alternative minimum taxes, although Co-Bond Counsel and Special Tax Counsel observe that such interest is included in adjusted current earnings when calculating corporate alternative minimum taxable income. It is the opinion of Co-Bond Counsel that, under existing law, the Series 2003B Bonds are exempt from all present intangible personal property taxes imposed by the State of Florida. Co-Bond Counsel and Special Tax Counsel express no opinion regarding any other tax consequences related to the ownership or disposition of, or the accrual of interest on, the Series 2003B Bonds. See "TAX EXEMPTION" herein. 1

$274,175,000
ORLANDO-ORANGE COUNTY EXPRESSWAY AUTHORITY 2
Revenue Bonds
Series 2003B

Dated: Date of Delivery (expected April 8, 2003) **Due: July 1, as provided on inside cover**

The Orlando-Orange County Expressway Autho 3 e "Authority") is issuing its Revenue Bonds, Series 2003B (the "Series 2003B Bonds") as fully registered bonds, initially registered in the name of C ., as nominee of The Depository Trust Company, New York, New York ("DTC") which will act as securities depository for the Series 2003B Bonds. Pur s of beneficial interests in the Series 2003B Bonds will be made in book-entry only form, without certificates, in denominations of $5,000 or integral multiples of $5,000. Interest on the Series 2003B Bonds will accrue from their dated date and will be payable on January 1 and July 1 of each year, commencing July 1, 2003. Principal of and premium, if any, on the Series 2003B Bonds will be payable at the designated corporate trust office of Wells Fargo Bank, N.A., registrar, paying agent and trustee, in Jacksonville, Florida. See "DESCRIPTION OF THE SERIES 2003B BONDS – Registration and Payment" herein. So long as DTC or its nominee is the registered owner of the Series 2003B Bonds, payments of the principal of, premium, if any, and interest on the Series 2003B Bonds will be paid directly to DTC or its nominee. See "DESCRIPTION OF THE SERIES 2003B BONDS – Book-Entry Only System" herein.

The Series 2003B Bonds are subject to optional and mandatory redemption prior to maturity as set forth herein. See "DESCRIPTION OF THE S 4 2003B BONDS – Redemption Provisions" herein.

The Series 2003B Bonds are being issued by the Authority as part of a continuing program under which the Authority provides long-term financing for certain projects or other improvements to the System (as defined herein) comprising portions of the Authority's Five-Year Work Plan, as in effect f ime to time (the "Work Plan"), all as more particularly described under "PLAN OF FINANCE" herein. See also "ESTIMATED SOURCES AND USES 5 NDS" herein.

The Series 2003B Bonds are secured by a pledge of and lien on the System Pledged Revenues (as defined herein) on a parity with the outstanding Bonds and any additional Parity Bonds (as each is defined herein) hereafter issued and any Qualified Swap Payments (as defined herein) related to such Bonds. See "SECURITY FOR THE SERIES 2003B BONDS" herein. 6

Contemporaneously with the issuance of the Series 2003B Bonds, the Authority is proposing to issue its (a) Refunding Revenue Bonds, Series 2 the aggregate principal amount of $298,665,000 (the "Series 2003A Bonds"), (b) Variable Rate Refunding Revenue Bonds, Series 2003C in four subse in an aggregate principal amount of $408,285,000 (the "Series 2003C Bonds"), and (c) Variable Rate Revenue Bonds, Series 2003D in the aggregate principal amount of $91,715,000 (the "Series 2003D Bonds"), all on a parity with the Series 2003B Bonds, all Parity Bonds hereafter issued and any Qualified Swap Payments related to such Bonds. The Series 2003A Bonds and the Series 2003C Bonds will be issued to, among other things, refund all of the Refunded Bonds (as defined herein). The Series 2003B Bonds and the Series 2003D Bonds will be issued to, among other things, provide long-term financing for certain projects or other improvements to the System comprising portions of the Work Plan, all as more particularly described under "PLAN OF FINANCE" herein.

PURCHASERS OF THE 2003 BONDS, INCLUDING THE SERIES 2003B BONDS, BY THEIR PURCHASE AND ACCEPTANCE THEREOF, WILL BE DEEMED TO HAVE EXPRESSLY AND IRREVOCABLY CONSENTED, IN WRITING, TO CERTAIN AMENDMENTS TO THE JUNIOR LIEN RESOLUTION AND THE LEASE-PURCHASE AGREEMENT. SEE "AMENDMENTS TO JUNIOR LIEN RESOLUTION AND LEASE-PURCHASE AGREEMENT" HEREIN.

The scheduled payment of principal of and interest on the Series 2003B Bonds when due will be guaranteed under an insurance policy to be issued concurrently with the delivery of the Series 2003B Bonds by Ambac Assurance Corporation. For a description of the terms and provisions of such policy, including the limitations thereof, see "FINANCIAL GUARANTY INSURANCE POLICY" herein and "FORM OF FINANCIAL GUARANTY INSURANCE POLICY" attached hereto as APPENDIX I.

Ambac 7

NEITHER THE STATE OF FLORIDA (THE "STATE"), ORANGE COUNTY, FLORIDA (THE "COUNTY"), NOR ANY POL AL SUBDIVISION OF THE STATE SHALL BE LIABLE FOR THE PAYMENT OF THE PRINCIPAL OF, PREMIUM, IF ANY, OR INTEREST ON THE SERIES 2003B BONDS, AND THE FULL FAITH AND CREDIT OF THE STATE, THE COUNTY OR OF ANY OTHER POLITICAL SUBDIVISION OF THE STATE SHALL NOT BE DEEMED TO HAVE BEEN PLEDGED FOR THE PAYMENT OF THE PRINCIPAL OF, PREMIUM, IF ANY, OR INTEREST ON THE SERIES 2003B BONDS. THE AUTHORITY HAS NO TAXING POWER. NO OWNER OF ANY OF THE SERIES 2003B BONDS SHALL EVER HAVE THE RIGHT TO COMPEL THE EXERCISE OF THE AD VALOREM TAXING POWER OF THE COUNTY OR ANY OTHER POLITICAL SUBDIVISION OF THE STATE, OR TAXATION IN ANY FORM OF REAL PROPERTY THEREIN, OR THE APPLICATION OF ANY FUNDS, OTHER THAN FUNDS PLEDGED TO THE PAYMENT OF THE SERIES 2003B BONDS. THE SERIES 2003B BONDS ARE NOT SECURED BY A MORTGAGE ON OR SECURITY INTEREST IN ANY OF THE REAL OR PERSONAL PROPERTY CONSTITUTING PART OF THE SYSTEM.

The Authority has contracted with Digital Assurance Certification LLC to be a supplemental source of information for the Series 2003B Bonds. See "CONTINUING DISCLOSURE" herein.

DAC Bond

This cover page contains certain information for quick reference only. It is not a summary of this issue. Investors must read the entire Official Statement to obtain information essential to making an informed investment decision.

Maturities, principal amounts, initial CUSIP numbers, interest rates and prices or yields of the Series 2003B B 8 e provided on the inside cover page hereof.

The Series 2003B Bonds are offered for delivery when, as and if issued by the Authority, subject to the approving opinion of Akerman Senterfitt, Orlando, Florida and Marchena and Graham, P.A., Orlando, Florida, Co-Bond Counsel. Certain matters pertaining to the exclusion from gross income for federal income tax purposes of interest on the Series 2003B Bonds will be passed upon by Palmer & Dodge LLP, Boston, Massachusetts, Special Tax Counsel. Certain legal matters will be passed upon by the General Counsel to the Authority, Shutts & Bowen, LLP, Orlando, Florida. Nabors, Giblin & Nickerson, P.A., Orlando, Florida, Robert P. Saltsman, P.A., Winter Park, Florida, and Ruye H. Hawkins, P.A., Orlando, Florida have served as Co-Disclosure Counsel. Certain legal matters in connection with the Series 2003B Bonds will be passed upon for the Underwriters by Ometrias D. Long & Associates, P.A., Winter Park, Florida, Counsel to the Underwriters. First Southwest Company, Orlando, Florida and Fidelity Financial Services, L.C., Hollywood, Florida have served as Co-Financial Advisors to the Authority. It is expected that the Series 2003B Bonds will be delivered through the facilities of DTC in New York, Ne ork, on or about April 8, 2003.

UBS PaineWebber Inc. 9

Salomon Smith Barney | **Morgan Stanley** (Morgan Stanley & Co. Incorporated) | **Raymond James & Associates, Inc.**

William R. Hough & Co. | **Bear, Stearns & Co. Inc.** | **Gardnyr Michael Capital, Inc.**

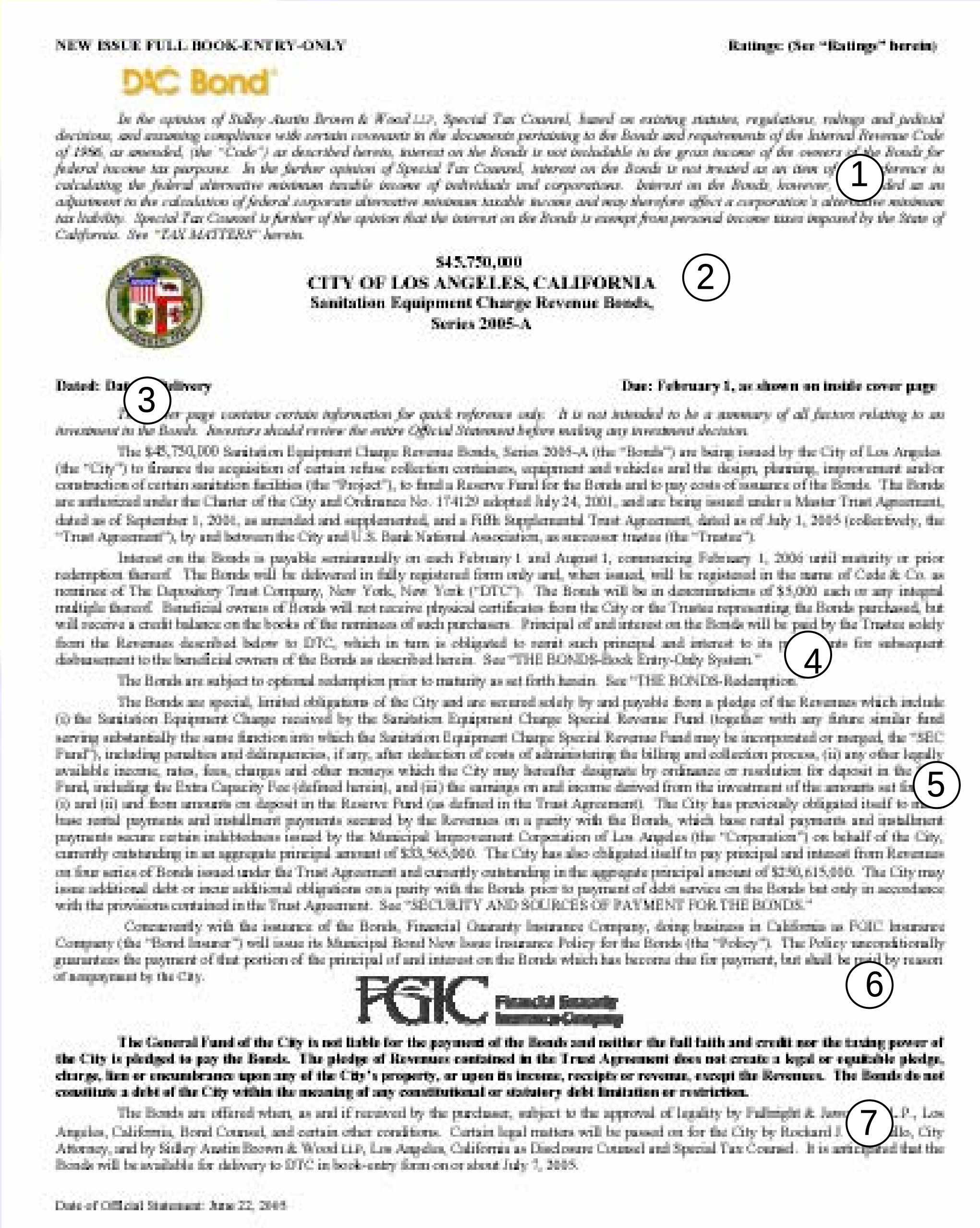
JPMorgan | **Ramirez & Co., Inc.**

Dated: March 5, 2003

New Money Example: OOCEA 2003B

1. Tax info
2. Par, Issuer, Issue Description, Series
3. Dated Date; Maturity Dates
4. Redemption (Call) Provisions
5. Purpose
6. Security
7. Insurance
8. Bond Counsel; Tax Counsel; Disclosure Counsel; Underwriters' Counsel; Financial Advisors
9. Managers/Syndicate

Inside an Official Statement: Cover



NEW ISSUE FULL BOOK-ENTRY-ONLY | Ratings: (See "Ratings" herein)

In the opinion of Sidley Austin Brown & Wood LLP, Special Tax Counsel, based on existing statutes, regulations, rulings and judicial decisions, and assuming compliance with certain covenants in the documents pertaining to the Bonds and requirements of the Internal Revenue Code of 1986, as amended, (the "Code") as described herein, interest on the Bonds is not includable in the gross income of the owners of the Bonds for federal income tax purposes. In the further opinion of Special Tax Counsel, interest on the Bonds is not treated as an item of tax preference in calculating the federal alternative minimum taxable income of individuals and corporations. Interest on the Bonds, however, is included as an adjustment in the calculation of federal corporate alternative minimum taxable income and may therefore affect a corporation's alternative minimum tax liability. Special Tax Counsel is further of the opinion that the interest on the Bonds is exempt from personal income taxes imposed by the State of California. See "TAX MATTERS" herein.

$45,750,000
CITY OF LOS ANGELES, CALIFORNIA
Sanitation Equipment Charge Revenue Bonds,
Series 2005-A

Dated: Date of Delivery | **Due: February 1, as shown on inside cover page**

This cover page contains certain information for quick reference only. It is not intended to be a summary of all factors relating to an investment in the Bonds. Investors should review the entire Official Statement before making any investment decision.

The $45,750,000 Sanitation Equipment Charge Revenue Bonds, Series 2005-A (the "Bonds") are being issued by the City of Los Angeles (the "City") to finance the acquisition of certain refuse collection containers, equipment and vehicles and the design, planning, improvement and/or construction of certain sanitation facilities (the "Project"), to fund a Reserve Fund for the Bonds and to pay costs of issuance of the Bonds. The Bonds are authorized under the Charter of the City and Ordinance No. 174129 adopted July 24, 2001, and are being issued under a Master Trust Agreement, dated as of September 1, 2001, as amended and supplemented, and a Fifth Supplemental Trust Agreement, dated as of July 1, 2005 (collectively, the "Trust Agreement"), by and between the City and U.S. Bank National Association, as successor trustee (the "Trustee").

Interest on the Bonds is payable semiannually on each February 1 and August 1, commencing February 1, 2006 until maturity or prior redemption thereof. The Bonds will be delivered in fully registered form only and, when issued, will be registered in the name of Cede & Co. as nominee of The Depository Trust Company, New York, New York ("DTC"). The Bonds will be in denominations of $5,000 each or any integral multiple thereof. Beneficial owners of Bonds will not receive physical certificates from the City or the Trustee representing the Bonds purchased, but will receive a credit balance on the books of the nominees of such purchasers. Principal of and interest on the Bonds will be paid by the Trustee solely from the Revenues described below to DTC, which in turn is obligated to remit such principal and interest to its participants for subsequent disbursement to the beneficial owners of the Bonds as described herein. See "THE BONDS-Book Entry-Only System."

The Bonds are subject to optional redemption prior to maturity as set forth herein. See "THE BONDS-Redemption."

The Bonds are special, limited obligations of the City and are secured solely by and payable from a pledge of the Revenues which include (i) the Sanitation Equipment Charge received by the Sanitation Equipment Charge Special Revenue Fund (together with any future similar fund serving substantially the same function into which the Sanitation Equipment Charge Special Revenue Fund may be incorporated or merged, the "SEC Fund"), including penalties and delinquencies, if any, after deduction of costs of administering the billing and collection process, (ii) any other legally available income, rates, fees, charges and other moneys which the City may hereafter designate by ordinance or resolution for deposit in the SEC Fund, including the Extra Capacity Fee (defined herein), and (iii) the earnings on and income derived from the investment of the amounts set forth in (i) and (ii) and from amounts on deposit in the Reserve Fund (as defined in the Trust Agreement). The City has previously obligated itself to make lease rental payments and installment payments secured by the Revenues on a parity with the Bonds, which lease rental payments and installment payments secure certain indebtedness issued by the Municipal Improvement Corporation of Los Angeles (the "Corporation") on behalf of the City, currently outstanding in an aggregate principal amount of $33,565,000. The City has also obligated itself to pay principal and interest from Revenues on four series of Bonds issued under the Trust Agreement and currently outstanding in the aggregate principal amount of $230,615,000. The City may issue additional debt or incur additional obligations on a parity with the Bonds prior to payment of debt service on the Bonds but only in accordance with the provisions contained in the Trust Agreement. See "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS."

Concurrently with the issuance of the Bonds, Financial Guaranty Insurance Company, doing business in California as FGIC Insurance Company (the "Bond Insurer") will issue its Municipal Bond New Issue Insurance Policy for the Bonds (the "Policy"). The Policy unconditionally guarantees the payment of that portion of the principal of and interest on the Bonds which has become due for payment, but shall be unpaid by reason of nonpayment by the City.

The General Fund of the City is not liable for the payment of the Bonds and neither the full faith and credit nor the taxing power of the City is pledged to pay the Bonds. The pledge of Revenues contained in the Trust Agreement does not create a legal or equitable pledge, charge, lien or encumbrance upon any of the City's property, or upon its income, receipts or revenues, except the Revenues. The Bonds do not constitute a debt of the City within the meaning of any constitutional or statutory debt limitation or restriction.

The Bonds are offered when, as and if received by the purchaser, subject to the approval of legality by Fulbright & Jaworski L.L.P., Los Angeles, California, Bond Counsel, and certain other conditions. Certain legal matters will be passed on for the City by Rockard J. Delgadillo, City Attorney, and by Sidley Austin Brown & Wood LLP, Los Angeles, California as Disclosure Counsel and Special Tax Counsel. It is anticipated that the Bonds will be available for delivery to DTC in book-entry form on or about July 7, 2005.

Date of Official Statement: June 22, 2005

Refunding Example: OOCEA 1993

1. Tax info
2. Par, Issuer, Issue Description, Series
3. Dated Date; Maturity Dates
4. Redemption (Call) Provisions
5. Security
6. Insurance
7. Bond Counsel; Tax Counsel; Disclosure Counsel; Underwriters' Counsel; Financial Advisors

Inside an Official Statement: Maturities, Amortization, Interest Rates, and Yields

Yield of the bond for each maturity (all the bonds are premium bonds)

Maturities, Principal Amounts, Interest Rates, Yields and CUSIP† Numbers
(Base CUSIP† Number: 54462P)

Maturity (February 1)	Principal Amount	Interest Rate	Yield	CUSIP† Number
2009	$4,000,000	5.000%	2.780%	DD1
2010	4,300,000	5.000%	3.000%	DE9
2011	2,765,000	5.000%	3.080%	DF6
2012	2,905,000	5.000%	3.230%	DG4
2013	3,055,000	5.000%	3.330%	DH2
2014	3,205,000	5.000%	3.450%	DJ8
2015	3,365,000	5.000%	3.540%	DK5
2016	3,530,000	5.000%	3.630% C	DL3
2017	3,710,000	5.000%	3.700% C	DM1
2018	8,165,000	5.000%	3.780% C	DN9
2019	6,750,000	5.000%	3.840% C	DP4

Each year when principal amounts mature and are being paid to investors

Amount of principal being amortized each year

Interest rate for each maturity

Inside an Official Statement: Sources and Uses of Funds

SOURCES AND USES OF PROCEEDS 1

The proceeds of the Bonds are expected to be used generally as set forth in the following table.

Sources of Funds:			
Principal Amount of Bonds		$45,750,000.00	
Net Original Issue Premium		4,523,645.50	
Total Sources		$50,273,645.50	
Uses of Funds:			
Deposit to Acquisition Fund	2	$45,209,500.00	6
Deposit to Reserve Fund[1]		4,575,000.00	
Costs of Issuance[2]		440,538.25	
Underwriters' Discount	3	48,607.25	
Total Uses		$50,273,645.50	

Sources and Uses

1. Bond Proceeds: Includes the Par Amount and the Discount or Premium on the bonds
2. Debt Service Reserve Fund
3. Expenses: Includes Cost of Issuance, Underwriter's Discount; can include Insurance costs, remarketing fees, broker fees, or other identified expenses

When sizing a bond:

Sources = Uses

Inside an Official Statement: Optional Redemption Provisions

Redemption

1

Optional Redemption. The Bonds maturing on or before February 1, 2015 are not subject to redemption prior to their maturity. The Bonds maturing on or after February 1, 2016 are subject to redemption prior to maturity at the option of the City, in whole or in part on any date on or after February 1, 2015, from any moneys that may be provided for such purpose, at a redemption price equal to 100% of the principal amount thereof, without premium, plus accrued and unpaid interest thereon to the date fixed for redemption.

2

Notice of Redemption. In the event any of the Bonds are called for redemption, the Trustee shall give notice, in the name of the City, of the redemption of such Bonds, at least 30 days before each redemption, by first-class mail (or with respect to Bonds held by the Depository by an express delivery service for delivery on the next following Business Day) to each Owner of a Bond to be redeemed; each such notice shall be sent to the Owner's registered address. The notice shall (i) specify the Bonds to be redeemed, the redemption date, the redemption price and the place or places where amounts due upon such redemption will be payable and, if less than all of the Bonds are to be redeemed, the numbers of the Bonds, and the portions of Bonds, to be redeemed, (ii) state any condition to such redemption and (iii) state that on the redemption date, and upon the satisfaction of any such condition, the Bonds to be redeemed shall cease to bear interest. Such notice may set forth any additional information relating to such redemption.

Redemption Provisions

1. Optional Redemption: Date on which the issuer has a right or option to call bonds before their actual maturity date; issuers may do this in order to reissue those bonds in a lower interest rate environment.
2. Notice of Redemption: The number of days notice an issuer has to give before redeeming bonds

Inside an Official Statement: Mandatory Redemption Provisions

1

Mandatory Redemption. The Series 2003B Bonds maturing on July 1, 2028 are subject to mandatory redemption in part prior to maturity upon published notice as provided in the Bond Resolution by operation of the Sinking Fund to satisfy sinking fund installments and redemption prices equal to 100 percent of the principal amount thereof, plus accrued interest, to the date of redemption on July 1 in the years and in the principal amounts set forth below:

2

Year	Principal Amount
2026	$9,990,000
2027	9,925,000
2028*	9,855,000

6

* Final maturity

Instead of paying the full amount of the term bond in year 2028, issuer pays a fraction of the par amount over three years.

Redemption Provisions

1. Mandatory Redemption: Obligation of the issuer to redeem bonds in a term bond series leading up to the final maturity date of the bond.

2. Sinking Fund Schedule: The principal amounts redeemed under mandatory redemption which helps spread out the financial obligation of the issuer. The issuer pays a set amount annually into a sinking fund from which bonds are redeemed on a set schedule.

Inside an Official Statement: Debt Service Schedule

Two semi-annual interest payments

TABLE NO. 1
DEBT SERVICE SCHEDULE

Period Ending	Series 2005-A Bonds ① Principal	Series 2005-A Bonds ② Interest	Prior Bonds Principal	Prior Bonds Interest	③ Outstanding Parity Bonds Principal	Outstanding Parity Bonds Interest	Total Debt Service
08/01/2005	$ -	$ -	$ -	$ 5,970,693	$ -	$ 775,159	$ 6,745,851
02/01/2006	-	1,296,250	4,610,000	5,970,693	19,035,000	775,159	31,677,101
08/01/2006	-	1,143,750	-	5,858,693	-	341,683	7,344,125
02/01/2007	-	1,143,750	18,755,000	5,858,693	5,760,000	341,683	31,859,125
08/01/2007	-	1,143,750	-	5,463,593	-	193,983	6,801,325
02/01/2008	-	1,143,750	19,215,000	5,463,593	6,055,000	193,983	32,071,325
08/01/2008	-	1,143,750	-	4,983,218	-	55,658	6,182,625
02/01/2009	$4,000,000	1,143,750	14,575,000	4,983,218	2,715,000	55,658	27,472,625
08/01/2009	-	1,043,750	-	4,657,986	-	-	5,701,736
02/01/2010	4,300,000	1,043,750	17,850,000	4,657,986	-	-	27,851,736
08/01/2010	-	936,250	-	4,236,705	-	-	5,172,955
02/01/2011	2,765,000	936,250	15,730,000	4,236,705	-	-	23,667,955
08/01/2011	-	867,125	-	3,868,325	-	-	4,735,450
02/01/2012	2,905,000	867,125	16,465,000	3,868,325	-	-	24,105,450
08/01/2012	-	794,500	-	3,498,075	-	-	4,292,575
02/01/2013	3,055,000	794,500	17,205,000	3,498,075	-	-	24,552,575
08/01/2013	-	718,125	-	3,085,019	-	-	3,803,144
02/01/2014	3,205,000	718,125	18,030,000	3,085,019	-	-	25,038,144
08/01/2014	-	638,000	-	2,651,469	-	-	3,289,469
02/01/2015	3,365,000	638,000	18,900,000	2,651,469	-	-	25,554,469
08/01/2015	-	553,875	-	2,196,869	-	-	2,750,744
02/01/2016	3,530,000	553,875	19,810,000	2,196,869	-	-	26,090,744
08/01/2016	-	465,625	-	1,736,975	-	-	2,202,600
02/01/2017	3,710,000	465,625	20,730,000	1,736,975	-	-	26,642,600
08/01/2017	-	372,875	-	1,229,394	-	-	1,602,269
02/01/2018	8,165,000	372,875	17,475,000	1,229,394	-	-	27,242,269
08/01/2018	-	168,750	-	795,988	-	-	964,738
02/01/2019	6,750,000	168,750	10,000,000	795,988	-	-	17,714,738
08/01/2019	-	-	-	539,113	-	-	539,113
02/01/2020	-	-	10,515,000	539,113	-	-	11,054,113
08/01/2020	-	-	-	269,000	-	-	269,000
02/01/2021	-	-	975,000	269,000	-	-	1,244,000
08/01/2021	-	-	-	244,625	-	-	244,625
02/01/2022	-	-	1,025,000	244,625	-	-	1,269,625
08/01/2022	-	-	-	219,000	-	-	219,000
02/01/2023	-	-	1,075,000	219,000	-	-	1,294,000
08/01/2023	-	-	-	192,125	-	-	192,125
02/01/2024	-	-	1,130,000	192,125	-	-	1,322,125
08/01/2024	-	-	-	163,875	-	-	163,875
02/01/2025	-	-	1,185,000	163,875	-	-	1,348,875
08/01/2025	-	-	-	134,250	-	-	134,250
02/01/2026	-	-	1,245,000	134,250	-	-	1,379,250
08/01/2026	-	-	-	103,125	-	-	103,125
02/01/2027	-	-	1,310,000	103,125	-	-	1,413,125
08/01/2027	-	-	-	70,375	-	-	70,375
02/01/2028	-	-	1,375,000	70,375	-	-	1,445,375
08/01/2028	-	-	-	36,000	-	-	36,000
02/01/2029	-	-	1,440,000	36,000	-	-	1,476,000
TOTAL[1]	$45,750,000	$21,276,500	$250,615,000	$104,408,973	$33,565,000	$2,732,962	$458,348,435

Debt Service Schedule

1. Principal Amortization

2. Interest (based on the coupon rate) paid to investors each year until the final maturity of the bonds.

Interest payment for = Coupon * Outstanding Debt

Example:

5% x $45,750,000 = $2,287,500

Interest is usually paid semi-annually. Coupon rates represent annual payment rates.

3. Debt service schedule for bonds issued in the past.

Sizing a Bond Issue: Sources and Uses

SOURCES AND USES OF FUNDS

Met Water Dist Revenue Bonds
Series 2004C Fixed Rate New Money Bonds

Dated Date	10/15/2004
Delivery Date	10/15/2004

Sources:	
Bond Proceeds:	
Par Amount	311,165,000.00
Premium	4,879,067.20
	316,044,067.20
Uses:	
Project Fund Deposits:	
New Money Project Fund	300,000,000.00
Other Fund Deposits:	
Debt Service Reserve Fund	14,030,968.66
Delivery Date Expenses:	
Cost of Issuance	300,000.00
Underwriter's Discount	1,711,407.50
	2,011,407.50
Other Uses of Funds:	
Additional Proceeds	1,691.04
	316,044,067.20

Sizing a Bond Issue: Bond Statistics

BOND SUMMARY STATISTICS

Met Water Dist Revenue Bonds
Series 2004C Fixed Rate New Money Bonds

Dated Date	10/15/2004
Delivery Date	10/15/2004
First Coupon	04/01/2005
Last Maturity	10/01/2039
Arbitrage Yield	4.900130%
True Interest Cost (TIC)	4.934948%
Net Interest Cost (NIC)	4.966564%
All-In TIC	4.941080%
Average Coupon	5.000000%
Average Life (years)	30.447
Duration of Issue (years)	15.959
Par Amount	311,165,000.00
Bond Proceeds	316,044,067.20
Total Interest	473,696,206.94
Net Interest	470,528,547.24
Bond Years from Dated Date	9,473,924,138.89
Bond Years from Delivery Date	9,473,924,138.89
Total Debt Service	784,861,206.94
Maximum Annual Debt Service	37,463,250.00
Average Annual Debt Service	22,449,540.86
Underwriter's Fees (per $1000)	
Average Takedown	
Other Fee	5.500000
Total Underwriter's Discount	5.500000
Bid Price	101.018000

Bond Component	Par Value	Price	Average Coupon	Average Life
Serial Bonds Due 2039	311,165,000.00	101.568	5.000%	30.447
	311,165,000.00			30.447

	TIC	All-In TIC	Arbitrage Yield
Par Value	311,165,000.00	311,165,000.00	311,165,000.00
+ Accrued Interest			
+ Premium (Discount)	4,879,067.20	4,879,067.20	4,879,067.20
- Underwriter's Discount	-1,711,407.50	-1,711,407.50	
- Cost of Issuance Expense		-300,000.00	
- Other Amounts			
Target Value	314,332,659.70	314,032,659.70	316,044,067.20
Target Date	10/15/2004	10/15/2004	10/15/2004
Yield	4.934948%	4.941080%	4.900130%

Sizing a Bond Issue: Bond Pricing

BOND PRICING

Met Water Dist Revenue Bonds
Series 2004C Fixed Rate New Money Bonds

Bond Component	Maturity Date	Amount	Rate	Yield	Price	Yield to Maturity	Premium (-Discount)
Serial Bonds Due 2039:							
	10/01/2029	21,905,000	5.000%	4.810%	101.568 C	4.890%	343,470.40
	10/01/2030	23,000,000	5.000%	4.810%	101.568 C	4.893%	360,640.00
	10/01/2031	24,145,000	5.000%	4.810%	101.568 C	4.895%	378,593.60
	10/01/2032	25,355,000	5.000%	4.810%	101.568 C	4.896%	397,566.40
	10/01/2033	26,620,000	5.000%	4.810%	101.568 C	4.898%	417,401.60
	10/01/2034	27,955,000	5.000%	4.810%	101.568 C	4.900%	438,334.40
	10/01/2035	29,350,000	5.000%	4.810%	101.568 C	4.901%	460,208.00
	10/01/2036	30,820,000	5.000%	4.810%	101.568 C	4.902%	483,257.60
	10/01/2037	32,360,000	5.000%	4.810%	101.568 C	4.903%	507,404.80
	10/01/2038	33,980,000	5.000%	4.810%	101.568 C	4.905%	532,806.40
	10/01/2039	35,675,000	5.000%	4.810%	101.568 C	4.906%	559,384.00
		311,165,000					4,879,067.20

Dated Date	10/15/2004	
Delivery Date	10/15/2004	
First Coupon	04/01/2005	
Par Amount	311,165,000.00	
Premium	4,879,067.20	
Production	316,044,067.20	101.568000%
Underwriter's Discount	-1,711,407.50	-0.550000%
Purchase Price	314,332,659.70	101.018000%
Accrued Interest		
Net Proceeds	314,332,659.70	

BOND BASICS

Sizing a Bond Issue: Bond Debt Service

BOND DEBT SERVICE

Met Water Dist Revenue Bonds
Series 2004C Fixed Rate New Money Bonds

Dated Date	10/15/2004
Delivery Date	10/15/2004

Period Ending	Principal	Coupon	Interest	Debt Service
10/01/2005			14,953,206.94	14,953,206.94
10/01/2006			15,558,250.00	15,558,250.00
10/01/2007			15,558,250.00	15,558,250.00
10/01/2008			15,558,250.00	15,558,250.00
10/01/2009			15,558,250.00	15,558,250.00
10/01/2010			15,558,250.00	15,558,250.00
10/01/2011			15,558,250.00	15,558,250.00
10/01/2012			15,558,250.00	15,558,250.00
10/01/2013			15,558,250.00	15,558,250.00
10/01/2014			15,558,250.00	15,558,250.00
10/01/2015			15,558,250.00	15,558,250.00
10/01/2016			15,558,250.00	15,558,250.00
10/01/2017			15,558,250.00	15,558,250.00
10/01/2018			15,558,250.00	15,558,250.00
10/01/2019			15,558,250.00	15,558,250.00
10/01/2020			15,558,250.00	15,558,250.00
10/01/2021			15,558,250.00	15,558,250.00
10/01/2022			15,558,250.00	15,558,250.00
10/01/2023			15,558,250.00	15,558,250.00
10/01/2024			15,558,250.00	15,558,250.00
10/01/2025			15,558,250.00	15,558,250.00
10/01/2026			15,558,250.00	15,558,250.00
10/01/2027			15,558,250.00	15,558,250.00
10/01/2028			15,558,250.00	15,558,250.00
10/01/2029	21,905,000	5.000%	15,558,250.00	37,463,250.00
10/01/2030	23,000,000	5.000%	14,463,000.00	37,463,000.00
10/01/2031	24,145,000	5.000%	13,313,000.00	37,458,000.00
10/01/2032	25,355,000	5.000%	12,105,750.00	37,460,750.00
10/01/2033	26,620,000	5.000%	10,838,000.00	37,458,000.00
10/01/2034	27,955,000	5.000%	9,507,000.00	37,462,000.00
10/01/2035	29,350,000	5.000%	8,109,250.00	37,459,250.00
10/01/2036	30,820,000	5.000%	6,641,750.00	37,461,750.00
10/01/2037	32,360,000	5.000%	5,100,750.00	37,460,750.00
10/01/2038	33,980,000	5.000%	3,482,750.00	37,462,750.00
10/01/2039	35,675,000	5.000%	1,783,750.00	37,458,750.00
	311,165,000		473,696,206.94	784,861,206.94

Sizing a Bond Issue: Net Debt Service

NET DEBT SERVICE

Met Water Dist Revenue Bonds
Series 2004C Fixed Rate New Money Bonds

Period Ending	Total Debt Service	Debt Service Reserve Fund	Net Debt Service
10/01/2005	14,953,206.94	660,798.26	14,292,408.68
10/01/2006	15,558,250.00	687,535.76	14,870,714.24
10/01/2007	15,558,250.00	687,535.76	14,870,714.24
10/01/2008	15,558,250.00	687,535.76	14,870,714.24
10/01/2009	15,558,250.00	687,535.76	14,870,714.24
10/01/2010	15,558,250.00	687,535.76	14,870,714.24
10/01/2011	15,558,250.00	687,535.76	14,870,714.24
10/01/2012	15,558,250.00	687,535.76	14,870,714.24
10/01/2013	15,558,250.00	687,535.76	14,870,714.24
10/01/2014	15,558,250.00	687,535.76	14,870,714.24
10/01/2015	15,558,250.00	687,535.76	14,870,714.24
10/01/2016	15,558,250.00	687,535.76	14,870,714.24
10/01/2017	15,558,250.00	687,535.76	14,870,714.24
10/01/2018	15,558,250.00	687,535.76	14,870,714.24
10/01/2019	15,558,250.00	687,535.76	14,870,714.24
10/01/2020	15,558,250.00	687,535.76	14,870,714.24
10/01/2021	15,558,250.00	687,535.76	14,870,714.24
10/01/2022	15,558,250.00	687,535.76	14,870,714.24
10/01/2023	15,558,250.00	687,535.76	14,870,714.24
10/01/2024	15,558,250.00	687,535.76	14,870,714.24
10/01/2025	15,558,250.00	687,535.76	14,870,714.24
10/01/2026	15,558,250.00	687,535.76	14,870,714.24
10/01/2027	15,558,250.00	687,535.76	14,870,714.24
10/01/2028	15,558,250.00	687,535.76	14,870,714.24
10/01/2029	37,463,250.00	687,535.76	36,775,714.24
10/01/2030	37,463,000.00	687,535.76	36,775,464.24
10/01/2031	37,458,000.00	687,535.76	36,770,464.24
10/01/2032	37,460,750.00	687,535.76	36,773,214.24
10/01/2033	37,458,000.00	687,535.76	36,770,464.24
10/01/2034	37,462,000.00	687,535.76	36,774,464.24
10/01/2035	37,459,250.00	687,535.76	36,771,714.24
10/01/2036	37,461,750.00	687,535.76	36,774,214.24
10/01/2037	37,460,750.00	687,535.76	36,773,214.24
10/01/2038	37,462,750.00	687,535.76	36,775,214.24
10/01/2039	37,458,750.00	14,718,504.42	22,740,245.58
	784,861,206.94	38,067,982.76	746,793,224.18

Sizing a Bond Issue: Debt Service Reserve Fund

DEBT SERVICE RESERVE FUND

Met Water Dist Revenue Bonds
Series 2004C Fixed Rate New Money Bonds

Date	Deposit	Interest @ 4.9001304%	Principal	Debt Service	Balance
10/01/2005	14,030,968.66	660,798.26		-660,798.26	14,030,968.66
10/01/2006		687,535.76		-687,535.76	14,030,968.66
10/01/2007		687,535.76		-687,535.76	14,030,968.66
10/01/2008		687,535.76		-687,535.76	14,030,968.66
10/01/2009		687,535.76		-687,535.76	14,030,968.66
10/01/2010		687,535.76		-687,535.76	14,030,968.66
10/01/2011		687,535.76		-687,535.76	14,030,968.66
10/01/2012		687,535.76		-687,535.76	14,030,968.66
10/01/2013		687,535.76		-687,535.76	14,030,968.66
10/01/2014		687,535.76		-687,535.76	14,030,968.66
10/01/2015		687,535.76		-687,535.76	14,030,968.66
10/01/2016		687,535.76		-687,535.76	14,030,968.66
10/01/2017		687,535.76		-687,535.76	14,030,968.66
10/01/2018		687,535.76		-687,535.76	14,030,968.66
10/01/2019		687,535.76		-687,535.76	14,030,968.66
10/01/2020		687,535.76		-687,535.76	14,030,968.66
10/01/2021		687,535.76		-687,535.76	14,030,968.66
10/01/2022		687,535.76		-687,535.76	14,030,968.66
10/01/2023		687,535.76		-687,535.76	14,030,968.66
10/01/2024		687,535.76		-687,535.76	14,030,968.66
10/01/2025		687,535.76		-687,535.76	14,030,968.66
10/01/2026		687,535.76		-687,535.76	14,030,968.66
10/01/2027		687,535.76		-687,535.76	14,030,968.66
10/01/2028		687,535.76		-687,535.76	14,030,968.66
10/01/2029		687,535.76		-687,535.76	14,030,968.66
10/01/2030		687,535.76		-687,535.76	14,030,968.66
10/01/2031		687,535.76		-687,535.76	14,030,968.66
10/01/2032		687,535.76		-687,535.76	14,030,968.66
10/01/2033		687,535.76		-687,535.76	14,030,968.66
10/01/2034		687,535.76		-687,535.76	14,030,968.66
10/01/2035		687,535.76		-687,535.76	14,030,968.66
10/01/2036		687,535.76		-687,535.76	14,030,968.66
10/01/2037		687,535.76		-687,535.76	14,030,968.66
10/01/2038		687,535.76		-687,535.76	14,030,968.66
10/01/2039		687,535.76	14,030,968.66	-14,718,504.42	
	14,030,968.66	24,037,014.10	14,030,968.66	-38,067,982.76	

Average Life (years):	34.9611
Yield To Receipt Date:	4.9002557%
Arbitrage Yield:	4.9001304%
Value of Negative Arbitrage:	-292.73

Sizing a Bond Issue: New Money Project Fund

NEW MONEY PROJECT FUND

Met Water Dist Revenue Bonds
Series 2004C Fixed Rate New Money Bonds

Date	Deposit	Interest @ 4.9001304%	Principal	Scheduled Draws	Balance
10/01/2005	300,000,000		300,000,000	300,000,000	
	300,000,000	0	300,000,000	300,000,000	

Arbitrage Yield 4.9001304%

Sizing a Bond Issue: Cost of Issuance

COST OF ISSUANCE

Met Water Dist Revenue Bonds
Series 2004C Fixed Rate New Money Bonds

Cost of Issuance	$/1000	Amount
Other Cost of Issuance	0.96412	300,000.00
	0.96412	300,000.00

Sizing a Bond Issue: Underwriter's Discount

UNDERWRITER'S DISCOUNT

Met Water Dist Revenue Bonds
Series 2004C Fixed Rate New Money Bonds

Underwriter's Discount	$/1000	Amount
Other Underwriter's Discount	5.50	1,711,407.50
	5.50	1,711,407.50

Sizing a Bond Issue: Proof of Arbitrage Yield

PROOF OF ARBITRAGE YIELD

Met Water Dist Revenue Bonds
Series 2004C Fixed Rate New Money Bonds

Date	Debt Service	PV Factor	Present Value to 10/15/2004 @ 4.9001304%
04/01/2005	7,174,081.94	0.977924619	7,015,711.35
10/01/2005	7,779,125.00	0.954537820	7,425,469.02
04/01/2006	7,779,125.00	0.931710310	7,247,890.96
10/01/2006	7,779,125.00	0.909428713	7,074,559.64
04/01/2007	7,779,125.00	0.887679975	6,905,373.48
10/01/2007	7,779,125.00	0.866451352	6,740,233.37
04/01/2008	7,779,125.00	0.845730405	6,579,042.54
10/01/2008	7,779,125.00	0.825504994	6,421,706.54
04/01/2009	7,779,125.00	0.805763269	6,268,133.19
10/01/2009	7,779,125.00	0.786493661	6,118,232.50
04/01/2010	7,779,125.00	0.767684881	5,971,916.65
10/01/2010	7,779,125.00	0.749325908	5,829,099.90
04/01/2011	7,779,125.00	0.731405984	5,689,698.58
10/01/2011	7,779,125.00	0.713914610	5,553,630.99
04/01/2012	7,779,125.00	0.696841538	5,420,817.43
10/01/2012	7,779,125.00	0.680176764	5,291,180.07
04/01/2013	7,779,125.00	0.663910523	5,164,642.95
10/01/2013	7,779,125.00	0.648033285	5,041,131.93
04/01/2014	7,779,125.00	0.632535747	4,920,574.64
10/01/2014	7,779,125.00	0.617408828	4,802,900.45
04/01/2015	7,779,125.00	0.602643665	4,688,040.40
10/01/2015	7,779,125.00	0.588231607	4,575,927.20
04/01/2016	7,779,125.00	0.574164210	4,466,495.16
10/01/2016	7,779,125.00	0.560433230	4,359,680.15
04/01/2017	7,779,125.00	0.547030623	4,255,419.59
10/01/2017	7,779,125.00	0.533948536	4,153,652.40
04/01/2018	7,779,125.00	0.521179303	4,054,318.94
10/01/2018	7,779,125.00	0.508715443	3,957,361.02
04/01/2019	7,779,125.00	0.496549652	3,862,721.81
10/01/2019	7,779,125.00	0.484674804	3,770,345.88
04/01/2020	7,779,125.00	0.473083939	3,680,179.09
10/01/2020	7,779,125.00	0.461770266	3,592,168.62
04/01/2021	7,779,125.00	0.450727157	3,506,262.89
10/01/2021	7,779,125.00	0.439948140	3,422,411.58
04/01/2022	7,779,125.00	0.429426901	3,340,565.54
10/01/2022	7,779,125.00	0.419157275	3,260,676.83
04/01/2023	7,779,125.00	0.409133243	3,182,698.64
10/01/2023	7,779,125.00	0.399348934	3,106,585.28
04/01/2024	7,779,125.00	0.389798614	3,032,292.14
10/01/2024	7,779,125.00	0.380476687	2,959,775.71
04/01/2025	7,779,125.00	0.371377691	2,888,993.48
10/01/2025	7,779,125.00	0.362496296	2,819,904.00
04/01/2026	7,779,125.00	0.353827296	2,752,466.76
10/01/2026	7,779,125.00	0.345365613	2,686,642.28
04/01/2027	7,779,125.00	0.337106289	2,622,391.96
10/01/2027	7,779,125.00	0.329044485	2,559,678.18
04/01/2028	7,779,125.00	0.321175476	2,498,464.18
10/01/2028	7,779,125.00	0.313494653	2,438,714.09
04/01/2029	7,779,125.00	0.305997514	2,380,392.91
10/01/2029	29,684,125.00	0.298679668	8,866,044.59
04/01/2030	7,231,500.00	0.291536825	2,108,248.55
10/01/2030	30,231,500.00	0.284564802	8,602,820.81
04/01/2031	6,656,500.00	0.277759513	1,848,906.20
10/01/2031	30,801,500.00	0.271116970	8,350,809.36

Bond Conventions

- **Basis Point**
  - Yields on bonds are usually quoted in terms of basis points, with one basis point equal to one one-hundredth of 1 percent.
    - .50% = 50 basis points
- **Day Count**
  - 30/360
    - Usually for tax-exempt fixed rate bonds
  - Actual/Actual
    - Usually for tax-exempt variable rate bonds
- **Pricing**
  - Round or truncate

Agenda

Page

Break